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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/551,141

09/29/2005

Dennis Karlsson

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EXAMINER

ISLAM, SYED A

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/551,141	Applicant(s) KARLSSON, DENNIS	
	Examiner SYED A. ISLAM	Art Unit 3611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-31,33 and 35-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-31,33 and 35-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09/29/2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claim 22 have been considered but are moot in view of the new ground(s) of rejection.

In fig. 7 of Viret, Viret discloses the dots are formed on back surface of the light transmitting block or the dots can be provided on a separate material which can be placed on a back surface of the light transmitting block (col. 4, lines 25-35). Moreover, Viret discloses the light diffusing dots are and/or more densely distributed the further away they are located from the light source in order to diffuse the light rays impinging thereon and produce a uniform transillumination (see col. 3, lines 55-70).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 21 and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 21 and 22 recites the limitation "the light guiding material" in line 8 and line 2 respectively. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 16-21 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bradford (6,612,055) in view of Wein (5,880,430).

Regarding claim 16, Bradford discloses a manufacturing method for production of an edge-illuminated sign with one or more figures having a large relief effect and a strong luminescence, the method comprising- providing a transparent, light guiding material 12 having a surface.

However, Bradford fails to disclose forming a relief of a figure in the light guiding material by using a laser beam to vaporize the light guiding material in proportion to an input amplitude- and frequency-controlled

amount of laser power; and controlling a the laser beam using a master program that makes the laser beam scan a line pattern at the same time as the laser beam is modulated by a frequency that controls the amplitude of the input power to the laser and thereby creates a screen pattern at the same time as an image program is superposed to control the and scanning frequency, so that the input laser power with amplitude variations proportional to the relief of the figure will burn at different depths and thereby form the relief of the figure such that the entire relief of the figure is recessed in the light guiding material. Instead, Wein discloses forming a relief of a figure 19 in material by using a laser beam to vaporize the light guiding material in proportion to an input amplitude- and frequency-controlled amount of laser power (col. 3, lines 60-67); and controlling a the laser beam using a master program 10 (col. 3, line 30; see fig. 1) that makes the laser beam scan 12 (col. 3, line 24; see fig. 1) a line pattern at the same time as the laser beam is modulated by a frequency that controls the amplitude of the input power to the laser and thereby creates a screen pattern at the same time as an image program is superposed to control the and scanning frequency, so that the input laser power with amplitude variations proportional to the relief of the figure will burn at different depths

(col. 4, lines 1-5) and thereby form the relief of the figure such that the entire relief of the figure is recessed in the light guiding material. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use the teaching of Wein in the invention of Bradford for the purpose of creating an inexpensive three dimensional sign.

Even though, Wein distinctly fails to disclose the master program scans the line pattern and the frequency of the amplitude can be varied to create scan pattern which is either proportional or different than the true line pattern. However, Wein discloses many software program is available to scan a line pattern and create a design to engrave in a work-piece. It is well known in scanner technology the screen pattern created by the scanner is proportional to the line pattern, and with the help of the computer software the screen pattern can be altered from the line pattern to create a desired shape.

Regarding claim 17, Bradford fails to disclose lines of the line pattern have a distance from each other that is essentially equal to the length of the screen pattern. Even though, Wein distinctly fails to disclose the master program scans the line pattern and the frequency of the amplitude can be varied to create scan pattern which is either proportional or different than

the true line pattern. However, Wein discloses many software program is available to scan a line pattern and create a design to engrave in a work-piece. It is well known in scanner technology the screen pattern created by the scanner is proportional to the line pattern, and with the help of the computer software the screen pattern can be altered from the line pattern to create a desired shape. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to create a scan pattern equal to a line pattern because it is simple and inexpensive.

Regarding claim 18, Bradford fails to disclose lines of the line pattern have a distance from each other that is essentially equal to about 0.1 mm. However, the applicant has failed to mention the reason for having this limitation in the specification. As it appears, the invention will work equally with more or less than 0.1 mm. It would have been obvious to one of ordinary skill in the art at the time of invention to make the line patterns at any distance as desired.

Regarding claim 19, Bradford fails to disclose the lines of the line pattern have a distance from each other that is different from the length of the screen pattern. Wein discloses the depth of screen pattern can be varied by adjustment of the laser power. The greater the power the greater

the depth of laser beam (col. 4, lines 1-10) penetration into work piece, from which it can be understood the screen pattern can be varied than the line pattern scanned by a program. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use the teaching of Wein in the invention of Bradford for the purpose of creating a three dimensional effect with a varying depth.

Regarding claim 20, Bradford fails to disclose the lines of the line pattern have a distance from each other that are larger or smaller than the length of the screen pattern obtained by the frequency that controls the amplitude of the input laser power and thereby can create screen patterns of differing character. Even though, Wein distinctly fails to disclose the master program scans the line pattern and the frequency of the amplitude can be varied to create scan pattern which is either proportional or different than the true line pattern. However, Wein discloses many software program is available to scan a line pattern and create a design to engrave in a work-piece. It is well known in scanner technology the screen pattern created by the scanner is proportional to the line pattern, and with the help of the computer software the screen pattern can be altered from the line pattern to create a desired shape. Therefore, it would have been obvious to one of

ordinary skill in the art at the time of invention to create a scan pattern equal to a line pattern because it is simple and inexpensive.

Regarding claim 21, Bradford discloses an edge-illuminated electric sign 10 (col. 3, line 40; see fig. 1) comprising a light transmitting material 12 (col. 3, line 41; see fig. 1) having a first edge arranged to receive light from a light source 50 (col. 6, line 3; see fig. 6) into the light transmitting material 12 and a surface, said light transmitting material 12 comprising one or more figures 16 (col. 3, line 42; see fig. 1) in form of a recess 14 (col. 3, line 42; see fig. 3) in the light transmitting material 12, wherein said recess 14 of the one or more figures 16 form a relief 18 (col. 3, line 43; see fig. 3) having a surface comprising a screen pattern 20 (col. 3, line 44; see fig. 3) with varying depth to provide strong luminescence.

However, Bradford fails to disclose each figure being in a form of a relief recessed and wherein the entire relief is recessed in the light guiding material. Instead, Wein discloses with laser engraving technology three dimensional figures 19 (col. 4, line 55; see fig. 5) can be recessed in a form of a relief recessed in a material, wherein the entire relief is recessed in the material. Therefore, it would have been obvious to one of ordinary skill in

the art at the time of invention to use the teaching of Wein in the invention of Bradford for the purpose of providing a three dimensional effect.

Regarding claim 38, Bradford fails to disclose the screen pattern comprises rectangular parallelepipeds in juxtaposition to each other and due to the nature of the laser beam vertical surfaces are sloping. Even though, Wein distinctly fails to disclose the master program scans the line pattern and the frequency of the amplitude can be varied to create scan pattern which is either proportional or different than the true line pattern. However, Wein discloses many software program is available to scan a line pattern and create a design to engrave in a work-piece. It is well known in scanner technology the screen pattern created by the scanner is proportional to the line pattern, and with the help of the computer software the screen pattern can be altered from the line pattern to create a desired shape. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use the teaching of Wein in the invention of Bradford for the purpose of providing a three dimensional effect.

Claims 22-25, 33, 36, 39 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bradford in view of Wein as applied to claim 21 above, and further in view of Viret et al. (3,241,256).

Regarding claims 22 and 39, Bradford fails to disclose a film or foil with a screen pattern, in which the screen pattern has a fineness proportional to the luminescence desired in different positions of the background and that the fineness is also proportional to the distance to the illuminated edge. However, Viret et al. disclose a film or foil with a screen pattern 22 (col. 3, line 37; see fig. 7), in which the screen pattern has a fineness proportional to the luminescence desired in different positions of the background and that the fineness is also proportional to the distance to the illuminated edge (col. 3, line 55-60; see fig. 7; where it shows the dots are of different shape proportional to the illumination desired). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use the teaching of Viret et al. in the invention of Bradford for the purpose of providing the desired brightness distribution.

Regarding the limitation of the screen pattern being produced by controlling a laser beam using a master program that makes the laser beam scan a line pattern at the same time as the laser beam is modulated by a frequency that controls the amplitude of the input power to the laser and thereby creates a screen pattern at the same time as an image

program is superposed the amplitude- controlled scanning frequency, so that the input laser power with amplitude variations proportional to the desired figure will burn at different depths and thereby give a relief of the figure, in the sign, the relief having a surface comprising a screen pattern with varying depth to provide strong luminescence, the limitation is considered as a method of manufacturing. And since the method is included in an article, the limitation has been given no further consideration by the office. As examined by the office, all the structures as claimed in the article claim are present in prior art.

Regarding claim 23, Bradford disclose a first mounting device, that is adapted to position and/or protect light-emitting elements at or inside an edge portion of said electric sign (see figure A below).

Regarding claim 24, Bradford discloses said mounting device is a continuous element that is arranged along a main part of said edge portion (see figure A where is shows the mounting device is one element).

Regarding claim 25, Bradford discloses said mounting device is provided with at least one connecting means, arranged to enable positioning of the electric sign at a desired location. The top portion of the